

STEPANYANTS, S.A.; MORDASHOV, V.N.; ISHCHUK, Yu.L.; STROM, D.A.;  
YENA, B.P.; NOVAKOV, G.Kh.

Continuous process of paraffin oxidation in the liquid-foam  
state aimed at the production of synthetic fatty acids. Trudy  
BONMZ no.1:20-25 '63. (MIRA 16:6)

(Paraffins) (Oxidation) (Acids, Fatty)

STEPANYANTS, S. A., inzh.; MORDASHOV, V. N., inzh.; ISHCHUK, Yu. L.,  
inzh.; STROM, D. A., inzh.; YENA, B. P., inzh.; NOVAKOV, G. Kh.,  
inzh.

Continuous process for paraffin oxidation in a liquid foamed  
state, Masl. zhir. prom. 29 no. 3:21-23 Mr '63.  
(MIRA 16:4)

1. Berdyanskiy opytnyy neftemaslozavod.  
(Paraffins) {Oxidation}

L 50547-65 EWT(m)/EPF(c)/T Pr-4 WE/RM  
ACCESSION: AP5015464

UR/0318/64/000/010/0034/0035

24  
22

AUTHOR: Stepanyants, S.A.; Grushevenko, V.I.; Man'kovskaya, N.K.; Zhurba, A.S.;  
Triandafilidi, I.G.; Mordashov, V.N.; Mishchuk, A.A.; Lakoyda, Ye. P.

TITLE: Start-up and operation of installation for the fractionation of synthetic  
fatty acids

SOURCE: Neftepererabotka i neftekhimiya, no. 10, 1964, 34-35

TOPIC TAGS: petroleum refinery equipment, petroleum engineering, petroleum refin-  
ing, synthetic material

Abstract: Operations of the first Soviet Installation for the fractionation  
of synthetic fatty acids installed at the Berdyansk Experimental Petroleum  
Refinery, were begun in 1962. The project was developed at the L'vov Branch  
of the Ukrainian Scientific-Research State Petroleum Design Institute. The  
installation consists of five distillation columns with bubble plates.  
Rectification is accomplished by consecutive distillation of fractions with  
increasing molecular weight. The final product emerges from the last column  
in the liquid phase. Imported "Univerdos" charge pumps and pipes made from

Card 1/2

L 50547-65

ACCESSION NR: AP5015464

1X18H12M2T steel are used. The segmented bubble plates are tightly seamed and covered with stainless steel sheets one millimeter thick, ceramic and metallic rings are fitted into the upper and lower sections of the third and fourth columns; special heating equipment makes it possible to heat the feed stock entering the columns to 310-320° was installed. Since little information available in regard to the effect of the above temperatures on high molecular synthetic fatty acids, the quality of the raw material before and after its exposure to the high temperatures was compared.

ASSOCIATION: Berdyanskiy neftemaslozavod(Berdyansk Experimental Petroleum Refinery) ✓

SUBMITTED: 00

ENCL: 00

SUB CODE: FP

NO REF Sov: 003

OTHER: 000

JFRS

me  
Card 2/2

STEPANOVANTS, S.A.; CHUSHEVNIKO, V.I.; KON'TOVSKAYA, N.K.; CHURKA, A.S.;  
TRIANDAFILIDI, I.G.; MELASHOV, V.N.; KISLOVSKAYA, A.A.; LAKOYDA, Ye.P.

Starting and adjusting a unit for rectifying synthetic fatty acids.  
Neftper. i neftekhim. no.10:34-35 '64. (MIRA 17:12)

1. Berdyanskiy optychnyy neftemasivzavod.

STRKANYANTS, S.A.; GRUSHENYKO, V.I.; ZHURBA, A.S.; NAN'KOVSAYA, N.Z.;  
TRIANTAFILLIKI, I.G., MOULASHOV, V.N.; MISHCHUK, R.A.; LAKOYTA,  
Ye.V.

Work experience in a plant for rectification of synthetic fatty  
acids. Neftaper. i nefttekhn. no.11:9-11 '64 (MIRA 18:2)

T. Berdyanskij opytznyj nefteemeschzavod.

L 34081-65 EPF(c)/EWT(m)/T Pr-4 DJ

S/0286/65/000/003/0042/0042

ACCESSION NR: AP5007173

22

B

AUTHOR: Ishchuk, Yu. L.; Sinitsyn, V. V.; Goshko, N. S.; Stepanyants, S. A.;  
Kabarivskaya, M. B.; Prokopchuk, V. A.

TITLE: Preparative method for calcium multi-constituent lubricating greases. Class  
23, No. 167936

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 3, 1965, 42

TOPIC TAGS: grease, lubricating grease, lubricant, calcium grease

ABSTRACT: An Author Certificate has been issued for a preparative method for calcium multi-constituent lubricating greases. The method consists in blending mineral oil with high- and low-molecular-weight carboxylic acids and saponifying with calcium hydroxide. In order to improve the thermal stability and mechanical strength of the grease and its ability to withstand service in a wide range of temperatures, glycerides of fatty acids containing two or three double bonds are added to the grease [SM] prior to saponification.

ASSOCIATION: none

Card 1/1

NAUMOV, D.V., kand.biol.nauk; STEPANYANTS, S.D.

Hydroids collected in Antarctic and subantarctic waters. Inform.  
biul.Sov.antark.eksp. no.3:57-58 '58. (MIRA 12:4)

1. Zoologicheskiy institut AN SSSR.  
(Antarctic regions--Hydrozoa)

NAUMOV, I. V.; STEPANOV, N. N.

Hydrofoil of the first generation of the Soviet Union's first  
sub-Antarctic research hydrofoil aircraft operation in the ice-free  
electric ship "VII." [sic] (July 1976, 190-176, "MIA 17:1")

I. Zolotukhinsky (not in GSA).

STEPAN'YANTS, S.N.

finding of the amphipods *Harpacticus* and *Thysanopeltis* in the Baffin Bay  
1911, in the Arctic basin. Zool. zhurn. no.178(6)-1863

1. Zoological Institute, Academy of Sciences of the USSR,  
Leningrad.

STEPAN'YANTS, S.D.

Oligomery of homologous elements in Siphonophora colonies as one of  
the characters of colonial integration in Siphonanthiae. Dokl. AN  
SSSR 163 no.2:519-522 J1 '65. (MIRA 18:7)

1. Zoologicheskiy institut AN SSSR. Submitted October 9, 1965.

BABAYEV, V.G.; STEPANYANTS, V.G.

Causes of the short life of plates and saddles of slush  
pump valves. Wash. i neft. obor. no.7-11-15 '65.  
(TIA 18:12)

STEPANYANTS, V.V.

Case of intussusception of the entire large intestine into the sigmoid flexure and two evaginations of the intestine in the postoperative period. Zdrav. Turk. 5 no.6:27 N-D '61. (MIRA 15:2)

1. Iz Kizyl-Arvatskoy gorodskoy bol'nitsy (glavnnyy vrach - M.A. Atayev).  
(INTESTINES—INTUSSUSCEPTION)

STEPANYANTS, V.V.

Strangulated left-side diaphragmal hernia. Zdrav.Turk. 7  
(MIRA 16:4)  
no.2:27-28 F '63.

l. Iz Kizyl-Arbatskoy zheleznodorozhnoy bol'nitsy (nachal'nik -  
A.T.Taganov).  
(DIAPHRAGM--HERNIA)

KOSHELEV, P.F. (Moskva); STEPANYCHEV, Yo.I. (Moskva)

Static tests of reinforced plastics. Izv.AN SSSR. Otd.tekh.nauk. Mekh.i  
mashinostr. no.5:180-183 S-0 '60. (MIRA 13:9)  
(Glass reinforced plastics)

S/191/62/000/002/006/008  
B101/B110

AUTHOR: Stepanychev, Ye. I.

TITLE: Statistical evaluation of strength test results of glass reinforced plastics type AG-4C (AG-4S)

PERIODICAL: Plasticheskiye massy, no. 2, 1962, 63 ~ 67

TEXT: The distribution law of deviations of tensile strength tests of glass reinforced plastics was investigated. The tests under participation of I. M. Makhmutov were conducted with AG-4S glass reinforced plastics: (I) containing longitudinally oriented glass fibers; (II) containing glass fiber layers alternatingly perpendicular to each other. Comparable results were safeguarded by identical preparation methods of the specimens which were stored at room temperature for three months to prevent incomplete polymerization. The tensile strength was measured at 22°C for 100 specimens each of I and II. The frequency  $P_m$  (%) of ruptures

plotted on ordinary probability paper produced no distribution of the function  $\sigma_t = f(P_m)$  according to the probability law.  $\log \sigma_t = f(P_m)$

Card : /2

Statistical evaluation of ...

S/191/62/000/002/006/008  
B101/B110

was found to follow the probability law which was confirmed by checking the criterium  $\chi^2$  according to A. Hald.  $\chi^2$  was 3.96 for specimens I and 3.77 for specimens II. The mean value,  $\bar{\log \sigma_t}$ , and the root mean square deviation,  $S(\log \sigma_t)$ , were also calculated. The statistical evaluation of tensile strength tests of AG-4S specimens must therefore take place on the basis of the logarithmic distribution function. It is reliable with 90% probability if 20-30 specimens of each type are tested. The results are more dependable than the test of 5-8 specimens only, and permit the evaluation of the effect of binding agent, filler, and preparation method on the strength of glass reinforced plastics on the basis of the variance  $S^2(\log \sigma_t)$ . Professor G. V. Uzhik, Doctor of Technical Sciences, is thanked for supervising the study. There are 3 figures, 1 table, and 12 references: 6 Soviet and 6 non-Soviet. The three references to English language publications read as follows: S. Bateson, J. Soc. Glass Techn., 37, no. 179, 302t (1953); S. D. Toner, I. Wolock, F. W. Reinhart, S. P. E. J., 14, no. 6, 40 (1958); A. Hald, Statistical Tables and Formulas, Publications in Statistics, New York, 1952.

Card 2/2

STEPANYCHEV, Ye. I  
AID Nr. 974-25 -20 May

TENSILE TESTS OF GLASS-REINFORCED PLASTICS (USSR)

Koshelev, P. F., I. M. Makhmutov, and Ye. I. Stepanychev. Plasticheskiye  
massy, no. 4, 1963, 66-69.

S/191/63/000/004/013/016

Tensile tests of AF-4C-type high-strength glass-reinforced plastics present more difficulties than compression or bend tests. An investigation has therefore been carried out to determine tensile testing methods at room and cryogenic temperatures, the shape and size of test specimens, and the method and fixtures to be used for clamping the specimens in the testing machines. It was found that at room temperature standard flat specimens clamped by means of wedges do not produce accurate results owing to stress concentration at the heads of the specimens and premature fracture. Special fixtures were therefore designed which use controlled clamping pressure or which hold flat specimens by friction forces which can be increased by placing a two-sided emery cloth between the fixture and specimen. Flat bars up to 250 mm long are recommended as test specimens. For testing at

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AID Nr. 971-25 20 May

8/191/63/000/004/013/015

TENSILE TESTS [Cont'd]

cryogenic temperatures, the same machines and method are used, but the specimen and clamping fixture are smaller and a cooling tank is added. The cooling tank consists of two cylindrical metal containers placed one within the other with insulation between them. For tests at temperature to -80°C, the inner cylinder is filled with alcohol and to -196°C, with liquid nitrogen. Cooling time required for the majority of specimen thicknesses is 15 min. Professor G. V. Uzhik supervised the investigation.

[SS]

Card 2/2

VASIL'YEV, Ye.F.; LIVOV, S.S.; STEPANOVICH, Ye.I.; SHPAKOVSKAIA, Ye.I.

Methods of static tests for tensile strength of glass plastics  
obtained by cold setting. Plast. massy no.6:57-60 '63.  
(MIRA 16:10)

KOMIELEV, P.F.; STEPANOVICH, Ye.I.

Determination of the modulus of elasticity of constructional  
materials. Zav.lab. 30 no. 4:492-494 '64. (MIRA 17-4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki.

STANISLAV VASIL'YEVICH KARABASH

Testing of the 122 mm multiple rocket launcher. Standardization  
29 no. 2410000000005. (MIRA 18:4)

ACC NR: AP7003635

SOURCE CODE: UR/0380/67/000/001/0098/0101

AUTHORS: Rabotnov, Yu. N. (Moscow); Sinayskiy, V. M. (Moscow); Stepanychev, Ye. I. (Moscow)

ORG: none

TITLE: A study of kinetics of the disintegration process of glass-reinforced plastic

SOURCE: Mashinovedeniye, no. 1, 1967, 98-101

TOPIC TAGS: *GLASS FIBER*, solid kinetics, reinforced plastic, resin, tube, film, lens objective, photoapparatus, polyester plastic, plastic deformation, performance test / No. 21 resin, PN-3 polyester, Zenit photoapparatus, Industar 22 lens objective, HSV-2 radiation tube, RT-5 x-ray film

ABSTRACT: Kinetics of the disintegration process of glass-reinforced plastics based on resin No. 21 and on unsaturated polyester PN-3 (cold set) has been studied using transmitted light photography and absorption microroentgenography. The specimens (30-mm wide rectangular strips) were cut from a sheet (0.6 mm thick) prepared from a single layer of fiber. The first study method, employing photoapparatus "Zenit" with objective "Industar 22," was used to investigate the development of cracks in the binder. The photographs were taken of specimens stretched at known load increments. X-ray diffraction study of the same specimen after removal of the load was conducted in the characteristic radiation of a copper anode at 8--9 kv issuing

UDC: 666.678.023

Card 1/2

ACC NR: AP7003635

from a BSV-2 tube, using domestic fine-grain x-ray film RT-5. It was established that, while increased load causes the appearance of a whole system of cracks (mainly perpendicular to the direction of the stretching) the microstructure of the filler is hardly affected by stretching up to the point of actual destruction of the specimen. The specimens of the materials were obtained from R. Ya. Ivanova (Leningrad). Orig. art. has: 3 figures.

SUB CODE: 11/ SUBM DATE: none

Card 2/2

MOSCOW, U.S.S.R.; STEFANYGIN, V.N.

Pipeline transportation of furnace mazut mixed with diluents.  
GUPKA 17-7  
Nett.khoz. 41 no. 1-58-63 Ja 163.

YEDIGAROV, S.G.; KUTUOV, Ye.G.; ABRAMOV, L.S.; STEPANYUGIN, V.N.

Methods and equipment for the experimental determination  
of temperature and velocity fields in "hot" pipelines.  
Transp. i Khran.nefti i nefteprod. no. 2:7-16 '64.  
(MIRA 17:5)

1. Nauchno-issledovatel'skiy institut po transportu i  
khraneniyu nefti i nefteproduktov.

MASLOV, L.S.; STEPANYUGIN, V.N.

Technical and economic indices of the various methods for transporting high-viscosity petroleums and petroleum products. Trudy NIITransneft' no.3:129-133 '64.

Determining the cost of the pumping of high-viscosity petroleum products in a mixture with a solvent. Ibid.:134-137 (MIRA 18:2)

STEPANYUGIN, V.N.; TSELIKOVSKIY, O.I.; ABRAMZON, L.S.

Stability of a hydromazut mixture when pumped with surfactants  
through pipelines. Transp. i khran. nefti i nefteprod. no. 6:  
12-15 '65. (MIRA 18:8)

1. Nauchno-issledovatel'skiy institut po transportu i khraneniyu  
nefti i nefteproduktov.

KRUGLYANSKIY, Mikhail Samoylovich; BESSENOV, L.A., doktor tekhn. nauk,  
prof., retsenzent; STEPANYUK, A.G., red.

[Handbook of electrical engineering] Elektrotekhnicheskii spravochnik. Belgorod, Belgorodskoe knizhnoe izd-vo, 1962. 479 p.  
(MIRA 16:2)  
(Electric engineering—Handbooks, manuals, etc.)

SHILOV, M.N.; SKIBO, N.S.; ROGOZHINA, N.V.; SHAPOSHNIKOV, Ya.P.;  
STEPANYUK, A.I.; APTEKAREV, M.A.; NEVZOROV, P.L.; TABAKO, P.I.;  
ALEKSEYEVSKIY, V.L.; ARTEMOV, N.N.; GRABOVSKIY, V.V.; MNOGOLET,  
V.Ya.

[Cultivation practices for increasing crop yields in Groznyy  
Province] "Agrotekhnicheskie meropriyatiia po povysheniiu  
urozhainosti dla Groznenskoi oblasti." Groznyi, Groznenskoe  
obl. izd-vo. Pt.1. [Cultivation of field crops] Polevodstvo.  
(MIRA 13:8)  
1945. 178 p.

1. Groznyy. Oblastnoy zemel'nyy otdel. 2. Glavnnyy agronom Groznenskogo  
Oblastnogo zemel'nogo otdela (for Shilov). 3. Groznenskiy Oblastnoy  
zemel'nyy otdel (for Skibo, Rogozhina, Shaposhnikov, Stepanyuk,  
Aptekarev). 4. Direktor Opytnoy stantsii Groznenskoy oblasti (for  
Grabovskiy). 5. Inspektor Inspektury po sortoispytaniyu zernovykh  
i maslichnykh kul'tur i trav Ministerstva sel'skogo khozyaystva  
SSSR (for Mnogolet).  
(Groznyy Province--Field crops)

STEPANYUK, A.N.

Veterinary workers of Vinnitsa Province in the strive for increased  
output of livestock products. Veterinariia 37 no.8:17-18 Ag . '60.  
(MIRA 15:4)  
1. Nachal'nik veterinarnogo otdela Vinnitskogo oblastnogo upravle-  
niya sel'skogo khozyaystva.  
(Vinnitsa Province--Veterinary hygiene)

Stepanyuk, G. M.

AID P - 2613

Subject : USSR/Meteorology

Card 1/1 Pub. 71-a - 16/26

Author : Stepanyuk, G. M.

Title : Design of a water-gaging bridge

Periodical : Met i gindr, 4, 51, J1/Ag 1955

Abstract : The design of a small water-gaging bridge built on a stream with little ice and no rafting is given in detail. One diagram.

Institution : None

Submitted : No date

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653220012-9

STEPANYUK, G.N.

Small bridge installation at a water gauge section. Meteor.i  
gidrol. no. 4:51 Jl-Ag'55.  
(Bridges, Pile)

(MIRA 8:11)

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653220012-9"

GUBENKO, Yu.K.; STEPANYUK, K.Kh.

PZhIA-40 beet pulp leader. Sakh. prom. 32 no. 46-48 N '58.  
(MIR 11:12)

1. Ukrainskiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta sel'sokhozyaystvennogo mashinostroyeniya.  
(Sugar beets--Transportation)

STEPANYUK, K.Kh.

New SKN-2 beet-harvester. Sakh. prom. 33 no.8:56 Ag '59.  
(MIRA 12:11)

1.Ukrainskiy nauchno-issledovatel'skiy institut sel'skokhozyay-  
stvennogo rashinostroyeniya (UkrNIISKHOM).  
(Sugar beets--Harvesting) (Harvesting machinery)

GUBENKO, Yu.K.; BRIN, L.G.; STEPANYUK, K.Kh.

PN-24, a new loader. Sakh.prom. no.4:24-25 Ap '60. (MIRA 13:8)

1. Ukrainskiy nauchno-issledovatel'skiy institut sel'skogozyayat-  
vennogo mashinostroyeniya.  
(Loading and unloading)

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653220012-9

GUBENKO, Yu.K., inzh.; BRIN, L.G., inzh.; STEPANYUK, K.Kh., inzh.

New universal PN-24 loader. Trakt. i sel'khozmash. 30 no.6:30-31.  
Je '60. (MIRA 13:11)  
(Loading and unloading) (Agricultural machinery)

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653220012-9"

STEPANYUK, K.Kh.

The VP-300 air-preheater for drying corncobs. Biul.tekh.-ekon.-  
inform. no.2:58-60 '62. (MIRA 15:3)  
(Corncobs—Drying)

Stepanov 14

1-FW

2

Stepanov, K. L. Quelques généralisations du principe du point stationnaire. Ukrainian Mat. Z. 9 (1957), 105-110. (Russian. French summary)

The author proves the following generalization of Schauder's fixed-point theorem: Let  $A$  be a completely continuous operator defined on a set  $M = M_1 - \sum_{i=1}^n x_i$ , where  $M_1$  is an infinite-dimensional bounded subset of a Banach space and  $\sum_{i=1}^n x_i$  is a finite subset of  $M_1$ . If  $AM \subset M_1$ , there exists either 1) a fixed point of  $A$  or 2) a sequence  $\{y_n\}$ ,  $y_n \in M$ ,  $\lim y_n = y_0$ , such that  $\lim Ay_n = y_0$ . The infinite dimensionality of  $M_1$  is necessary. A special case of the theorem is applied to the integral equation

$$\varphi(x) = \lambda \int_a^b K(x, t)/[t, \varphi(t)] dt + F(x),$$

with 1)  $K(x, t)$  uniformly continuous on  $a \leq x, t \leq b$ ,  $F(x)$  continuous on  $a \leq x \leq b$  and 2)  $f(x, y)$  bounded and uniformly continuous on  $a \leq x \leq b$ ,  $|y| \leq 2 \max \{|F(x)|; a \leq x \leq b\}$  except for a countable set  $P$  of curves  $y = p(x)$ ,  $p(x)$  an arbitrary polynomial. Theorem: For all sufficiently small real  $\lambda$  there exists either 1) a continuous solution of the integral equation or 2) a sequence  $\{\varphi_n(x)\}$  of functions, continuous on  $a \leq x \leq b$ , uniformly convergent to a continuous function  $\varphi_0(x)$ , and such that

Soviet

STEPANYUK, L.

Volunteer workers are our support. NTO 3 no. 9:55 S '61.  
(MIRA 14:8)  
1. Uchenyy sekretar' soveta Nauchno-tekhnicheskogo obshchestva  
Neftepromyslovogo upravleniya "Bugul'maneft".  
(Bugul'ma--Oil fields--Production methods)

STEPANYUK, M., SVECHNIKOV, N., Engs.

Tractors

Wear of piston parts of the tractor DT-54. MTS 12 no. 6, 1952.

Monthly List of Russian Accessions. Library of Congress October 1952. UNCLASSIFIED.

STEPANYUK, M. A.

22522. Stepanyuk, M. A. Zksperimental'noye issledovaniye kombainovolo uborochno-lushchil'nogo agregata sel'khozmashina 1949 No. 7-5-8-15

SO: LETOFIS' No. 30, 1949

STEPANYUK, M.I.

Dependable way of combatting weeds. Put'i put.khoz. no.7:37  
J1 '59. (MIRA 12:9)

1. Nachal'nik distantsii zashchitnykh lesosazhdeniy, stantseya  
Berdichev, Yugo-Zapadnoy dorogi.  
(Weed control)

STEPANYUK, M.O., kand.tekhn.nauk

Using various fuels for steaming root crops and potatoes. Mekh.  
sel'. hosp. 9 no.9:21-22 S '58. (MIRA 11:10)  
(Feeding and feeding stuffs--Equipment and supplies)

USSR/Electronics - Oscillations

Card 1/1 Pub. 89 - 29/31

Authors : Stepanyuk, N., and Nefedov, A.

Title : Audio-frequency oscillator

Periodical : Radio 11, 60-62, Nov 1954

Abstract : An audio-frequency oscillator, having vacuum-tube circuits that can be set for testing various A-F amplifiers, A-F receiver-stages, transmitter-modulators, etc., is described. The oscillator's overall frequency range is 30 - 30,000 cps. For the range between 50 and 30,000 cps, the maximum high-ohm output voltage is no less than 30v and the maximum low-ohm output voltage is not less than 2v. A general circuit diagram schematically indicating the tube stages, resistances, filters, capacitances, the transformer and impedance coils, is presented. Both a negative and a positive feedback are used in the oscillator circuit. A detailed description of the transformer, its core, and windings is included. The assembly of the oscillator on the chassis and its adjustment, method of tuning the circuits and reading the output voltages are also given. Illustrations; diagrams.

Institution : ...  
Submitted : ...

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653220012-9

\*TENNY K. H. (Capt Maj.)

"Aircraft Radio Communications in the USSR", *Vestnik Vozdushnogo Flota*, No. 5,  
pp. 13-19, 1949.

SO: W-17978, 3 May 1951.

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653220012-9"

STEPIANYUK, N.A.

Measuring amplifier. Trudy inst. Kom. stand., mer i izm. prit.  
no.70:17-22 '63. (MIRA 18:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut fiziko-tehnicheskikh  
i radiotekhnicheskikh izmereniy.

Stepanyuk, N.V.

✓ 228. Bonding of vulcanized rubber to metal through a brass interlayer deposited from a cyanide electrolyte. N. V. STEPANYUK. Trudy Nauchno-Issled. Inst. Rezin. Prom., 1955, No. 2, 109-22. The bond strength depends upon the rubber mix, the relative proportions of copper and zinc in the brass layer and the character of the surface. With a dull matt surface, as obtained by electrodeposition, the bond strength is 122 kg/sq.cm, but with a bright surface it is 34 kg/sq.cm. The best quality of brass layer is obtained with the concentration of copper in the electrolyte higher than that of zinc, the alkalinity of the electrolyte 0.14 to 0.19 N, content of conditionally free cyanide ion 0.5 to 2 g/l, current density 0.6 to 0.8 amp/sq.dim, and the temperature 20 to 25°C. The type and content of accelerant and sulphur is important; a large quantity of plasticizer in the rubber makes adhesion by this method impossible. There are 9 references. 65411

Matt

? Mett

STEPANYUK, T.I.; CHERNYAVSKA, L.N.

Combined effect of the antibiotics synthomycin, biomycin and sanasine  
on dysentery bacilli. Mikrobiol.zhur. 18 no.4:27-31 '56. (MIRA 10:2)

1. Z kharkiv's'kogo medichnogo institutu, kafedra mikrobiologii.

(ANTIBIOTICS, effects,

chloramphenicol with biomycin & sanasine on Shigella  
dysenteriae (Uk))

(SHIGELLA DYSENTERIAE, effect of drugs on,  
biomycin with chloramphenicol & sanasine (Uk))

STMPANYUK, V.A.

Changing the design of apron feeder drives. Biul. TSNIICHEM no.4:41  
'58. (MIRA 11:5)

1. Chelyabinskij metallurgicheskiy zavod.  
(Conveying machinery)

ANDRIYASH, L.T.; STEPANYUK, V.D.

Cases of abnormality in newborn animals. Veterinaria 38  
no.1:59-61 Ja '61. (MIRA 15:4)

1. Ukrainskaya akademiya sel'skokhozyaystvennykh nauk.
2. Glavnyy veterinarnyy vrach Piryatinskogo rayona, Poltavskoy oblasti (for Andriyash).  
(Abnormalities (Animals)) (Veterinary obstetrics) (Calves)

SHKURIN, A.V.; STEPANYUK, V.D.; STAVITSKIY, I.P.

So that people would be healthy. Veterinariia 42 no.10:10-14 0  
'65. (MIRA 18:10)

1. Nachal'nik veterinarno-sanitarnoy stantsii, Novosibirsk (for  
Nizovkin). 2. Direktor veterinarnoy laboratorii, gorod Smela,  
Cherkasskoy oblasti (for Stepanyuk). 3. Zaveduyushchiy myaso-  
holodnyiy i pishchevoy kontrol'noy stantsiyey, gorod Smela  
Cherkasskoy oblasti (for Stavitskiy).

L 3774-66 ENT(m) DIAAP GS

ACCESSION NR: AT5007949

S/0000/64/000/000/0780/0790

29  
ET/

AUTHOR: Vagin, V. A.; Vekeler, V. I.; Zubarev, V. N.; Kuznetsov, A. B.; Mikhlin, S. V.; Petukhov, V. A.; Popov, V. A.; Rubin, N. B.; Stepanyuk, V. L.; Chekhlov, K. V.; Semenyushkin, I. M.

TITLE: Electrodynamic separator of antiprotons with 5 Gev/c momentum

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy. Moscow, Atomizdat, 1964, 788-790

TOPIC TAGS: high energy particle, antiproton, pion, particle interaction

ABSTRACT: The study of processes initiated by such particles as high-energy K-mesons and antiprotons is often determined by the possibility of separating these particles from an accompanying pi-meson background. The tremendous technical difficulties arising in the use of the electrostatic method of separation for obtaining pure beams of relativistic particles urgently dictate the necessity of seeking new means of separating particles. In 1956, V. I. Vekeler and V. A. Petukhov proposed an electrodynamic method of separating particles according to masses. At the present time the high-energy laboratory of the Joint Institute of Nuclear Research is perfecting the application of an electrodynamic separator, creat-

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ACCESSION NR: AT5007949

ed on the basis of this method, of antiprotons with momentum up to 5 Gev/c. The present report discusses the principle governing the operation of the electrodynamic separator. At the end of the acceleration cycle in the synchrophasotron the protons are recaptured into the acceleration regime at a frequency of high multiplicity and are subsequently directed against a target. The beam of secondary particles which then occurs possesses a corresponding high-frequency structure. The negatively charged particles that interest us are extracted by the magnetic field of the accelerator to the outside. Further, as a result of magnetic analysis the particles are resolved in a narrow interval of momenta, or pulses. A longitudinal distribution of the resolved particles begins to take place over a certain distance of their flight. The antiprotons being heavier particles retire from the pi-mesons. If the total length  $L$  of flight, counted from the target (for the case of relativistic particles) is equal to

$$L \approx \frac{\lambda}{2(\beta_1 - \beta_2)},$$

where  $\lambda$  is the operating wavelength of a multiple-acceleration system and  $\beta_1, \beta_2$  are respectively the velocities of the pi-mesons and antiprotons in units of the speed of light, then the lag of the antiprotons is exactly equal to the half wavelength  $\lambda/2$ . On the path of the particles at this place there is created a high-frequency transverse electric field with the same wavelength  $\lambda$  which is rigidly bound in

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ACCESSION NR: AT5007949

phase with the voltage that is accelerating the beam at multiple frequency. In case of a suitable choice of the phase of the electric field the antiprotons and the pi-mesons will obtain angular deflections different in sign and can be spatially resolved further. The report discusses the composition of the electrodynamic separator of antiprotons at the high-energy laboratory, which consists of a multiple-acceleration system, deflecting device, and an ion-optical system. Also discussed are the separator's characteristics. The device can also be employed to resolve pi-mesons and antiprotons with smaller values of momenta and to separate K-mesons, if certain necessary conditions are fulfilled for the separation of antiprotons and K-mesons respectively:

$$(pc)_{\bar{p}} \approx m_p c^2 \left[ \frac{L}{(2n+1)\lambda} \right]^{1/n}; \quad (pc)_K \approx m_p c^2 \left[ \frac{L}{(2n+1)\lambda} \right]^{1/n}.$$

where the momenta of the antiprotons and K-mesons are respectively  $(pc)_{\bar{p}}$ ,  $(pc)_K$ , and the rest-energy of an antiproton is  $m_p c^2$ , and  $n = 0, 1, 2, \dots$  Orig. art. had 3 figures.

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L 3774-66  
ACCESSION NR: AT5007949

ASSOCIATION: Ob'yedinenyy institut Yadernykh issledovaniy, Dubna (Joint Institute  
of Nuclear Research)

SUBMITTED: 26May84

ENCL: 00

SUB CODE: NP

NO REF Sov: 003

OTHER: 000

GC  
Card 5/4

SLEDYANSKIY, N.V.; STEPANYUK, V.N.

Mechanized continuous line of cooling and edging plywood. Bum.  
i der. prom. no.1:5-6 Ja-Mr '63. (MIRA 16:7)

(Lvov--Plywood industry)

SLEDYANSKIY, N.V., inzh.; STEPANYUK, V.N., inzh.

Continuous line of cooling and edging plywood. Der. prom. 12  
no.4:24-25 Ap '63. (MIRA 1640)

STEPANOV, V.A. [Stepanov, V.O.] (Kiyev); STEPANYUK, V.V. (Kiyev)

Determining minimum speed for supercritical conditions of ship  
movement in canals. Prykl.mekh. 8 no.5:534-540 '62.  
(MIRA 15:9)

1. Institut gidrologii i gidrotekhniki AN UkrSSR.  
(Canals) (Inland navigation)

L 16376-65 EWT(d)/ENT(m)/EWP(w)/EWA(d)/EWP(v)/EWP(k)/EWA(h) Pf-4/Peb ESD(t),  
 ESD(gs)/AEDC(a)/SSD/AFWL/ASD(a)-5/ASD(f)-2/AFETR/APGC(a) EM

ACCESSION NR: AP5000109

S/0198/64/010/006/0640/0648

AUTHOR: Stepanyuk, V. V. (Kiev)

TITLE: Propagation of acoustic disturbances in a gas flowing in cylindrical and  
 conical shells of revolution

SOURCE: Prykladna mekhanika, v. 10, no. 6, 1964, 640-648

TOPIC TAGS: three dimensional flow, adiabatic gas flow, conical flow, cylindrical  
 flow, potential flow, wave propagation

ABSTRACT: The potentials of small three-dimensional disturbances are determined  
 in a gas flowing in cylindrical and conical containers of revolution. Isentropic  
 gas flow and the absence of viscosity are assumed. The apex angle of the cone is  
 considered small. The change of Mach number along the conical shell is neglected,  
 which is possible for shells close to cylindrical. In view of the fact that the  
 potential equations are linear, the obtained solutions are useless for Mach  
 numbers near 1. The potential for the cylindrical case is given by:

$$\varphi = A_{nm} \cos_n \theta J_n \left( \frac{\omega r}{c} \right) \left[ \cos \frac{n\pi}{L} x + \frac{i\omega ML}{\pi mc} \sin \frac{n\pi}{L} x \right] e^{-i\omega \left[ (1-M^2)t + \frac{M}{c} x \right]}$$

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ACCESSION NR: AP5000109

where  $x, r, \theta$  are the cylindrical coordinates,  $t$  is the time,  $M$  is the Mach number,  $c$  is the velocity of sound in the undisturbed gas flow,  $L$  is the length of the shell,

$$\omega = \pm \sqrt{\frac{\omega_r^2}{1-M^2} + \frac{\pi^2 m^2 c^2}{L^2}},$$

$\omega_r$  is a root of the equation

$$\frac{d}{dr} J_n\left(\frac{\omega_r R}{c}\right) = 0,$$

and  $R$  is the inside shell radius. For the conical case:

$$\psi = \lambda \rho \int_{\alpha_0}^{\alpha} J_v(\mu \alpha) e^{-i\theta \left[ (1-M^2)\alpha + \frac{1}{c} (1+M)\theta \right] + i\psi_0}$$

where  $\rho, \alpha, \theta$  are the conical coordinates related to the cylindrical by

$$x = \rho \cos \alpha; \quad r = \rho \sin \alpha; \quad \theta = \theta,$$

$\mu$  is a root of the equation

$$\frac{d}{d\alpha} J_v(\mu \alpha_0) = 0,$$

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L 16376-65  
ACCESSION NR: AP5000109

$2\alpha_0$  is the apex angle,

$$\lambda_s = \lambda_1 \left( \frac{2\omega l}{c} \right)^{\frac{M}{1-M^2}},$$

$$\lambda_1 = \lambda \left( -\frac{1}{c} \right)^{\frac{1}{1-M^2}},$$

and  $\lambda$  is a constant. The obtained potential allows the determination of the disturbance velocity and pressure. It is shown that these quantities depend to a large degree on the Mach number of the main current. Orig. art. has: 70 equations.

ASSOCIATION: Instytut mekhaniki AN URSR (Institute of Mechanics, AN URSR)

SUBMITTED: 21Apr64

ENCL: 00

SUB CODE: ME

NO REF Sov: 005

OTHER: 002

Card 3/3

L 31088-65 EWA(h)/EWP(k)/EWT(d)/EAT(m)/EWA(d)/EWP(w)/EWP(v) Pf-14/Peb EM

ACCESSION NR: AP5007270

S/0198/65/001/002/1078/0085

AUTHOR: Stepanyuk, V. V. (Kiev)

TITLE: Vibration and stability of a cylindrical sandwich shell with a perfect incom-  
pressible liquid 24 26 27

SOURCE: Prikladnaya mekhanika, v. 1, no. 2, 1965, 78-85

TOPIC TAGS: cylindrical shell, sandwich shell, cylindrical sandwich shell, liquid  
filled shell, corrugated core sandwich shell, shell vibration, cylindrical shell os-  
cillation

ABSTRACT: Vibration of a finite-length cylindrical sandwich shell having plain faces  
and a longitudinally corrugated core is examined. The faces are soldered to the core  
along the lines of contact (generatrices), and a perfect incompressible liquid flows  
with a constant velocity in channels between one of the faces of the core. The ef-  
fect of the flow velocity of the liquid on shell vibrations is studied. The shell is  
treated as a plain orthotropic one, using the hypothesis on preservation of normals  
(no slippage between faces and core under deformation), and the equations of the  
shell motion are obtained in terms of displacements. The procedure used in determi-  
ning the effect of the liquid flow on the frequency of the shell is outlined, and

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L 34088-65

ACCESSION NR: AP5007270

the natural frequency equations are derived under the simplifying assumption that the tangential inertia forces of the shell and of the liquid have little influence on the frequency. These equations show the effect of the flow velocity on the frequency (the higher the velocity, the lower the frequency), and a formula for the critical velocity at which the shell buckles is derived from them. Orig. art. has: 3 figures [VK] and 34 formulas.

ASSOCIATION: Institut mekhaniki AN UkrSSR (Institute of Mechanics, AN UkrSSR)

SUBMITTED: 03Sep64

ENCL: 00

SUB CODE: AS,ME

NO REF Sov: 005

OTHER: 000

ATD PRESS: 3210

Card 2/2

STEPANYUK, V.V. (Kiyev)

Propagation of acoustic disturbances in a gas flowing in  
cylindrical and conic shells of revolution. Prykl. mekh.  
10 no.6:640-648 '64. (MIRA 18:2)

1. Institut mekhaniki AN UkrSSR.

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653220012-9

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653220012-9"

L 14050-66 EWT(d)/EWT(l)/EWP(m)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/EWP(c)/ETC(m)-6/EWA(1)  
ACC NR: AT6004255 IJP(c) WW/HM/EM/GS SOURCE CODE: UR/0000/65/000/000/0015/0019

AUTHORS: Stepanyuk, V. V.; Babich, D. V.

58  
18+1

ORG: Institute of Mechanics, AN UkrSSR (Institut mekhaniki AN UkrSSR)

TITLE: Vibrations and stability of a conical triple-layered shell with fluid flow in  
the middle layer

26

SOURCE: AN UkrSSR. Issledovaniya po prikladnoy gidrodinamike (Research in applied hydrodynamics). Kiev, Izd-vo Naukova dumka, 1965, 15-19

TOPIC TAGS: shell, shell theory, fluid mechanics, shell vibration

ABSTRACT: The vibrations and stability of a composite triple-layered conical shell were investigated. The shell consisted of two isotropic coaxial smooth layers rigidly joined at contact points formed by a corrugated middle layer. An ideal incompressible fluid of density  $\rho_0$  was flowing in the channels formed by the corrugation crimps and the external shells. The general rate of flow in the middle layer was constant. The analysis employs a coordinate system based upon the median surface of the middle layer. Coordinate lines are the lines of principle curvature of this surface, and the origin is at the apex of the cone. The following variables and constants are defined:  $h_1$ ,  $h_2$ ,  $h_3$ , and  $h$  are the thicknesses of the inner, outer, and middle layers, and the

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ACC NR: AT6004255

sheet thickness of the middle layer, respectively;  $E_1$ ,  $E_2$ , and  $E$  are the respective moduli of elasticity;  $x$  and  $\theta$  are linear and angular coordinates;  $\alpha$  is the angle between the generatrix and the axis of the cone;  $x_0$  is the distance along the generatrix from the apex of the cone to the lesser face;  $L$  is the length of the cone along the generatrix;  $i$  is the length of the corrugated wave;  $U_0$  is the velocity of the fluid on the larger face;  $u$ ,  $v$ , and  $w$  are components of the translation vector;  $R_0$  is the radius of the section of the coordinate surface at the larger face. An equivalent orthotropic smooth shell of thickness  $h_3$  is substituted for the corrugated layer according to the method of L. Ye. Andreyev (Raschet gofrirovannykh membran kak anizotropnykh plastin, Inzh. sb. t. 21, M., Izd-vo AN SSSR, 1955). Elasticity conditions for the coordinate surface are given by S. A. Ambartsumyan (Teoriya anizotropnykh obolochek, M., FM, 1961). The solution of the problem is based upon the Bubnov-Galerkin method, with equations of motion written as

$$\left[ a_1 x^2 \frac{\partial}{\partial x} \left( x \frac{\partial}{\partial x} \right) + a_2 \frac{x}{\sin^2 \alpha} \frac{\partial^2}{\partial \theta^2} \right] u + \frac{1}{\sin \alpha} \frac{\partial}{\partial \theta} \left[ x (a_3 x + a_4 \operatorname{ctg} \alpha) \frac{\partial}{\partial x} + (a_5 x + a_6 \operatorname{ctg} \alpha) \right] v + \left[ a_7 x^2 \frac{\partial}{\partial x} \left( x \frac{\partial^2}{\partial x^2} \right) + \frac{1}{\sin^2 \alpha} \frac{\partial^2}{\partial \theta^2} \left( x a_8 \frac{\partial}{\partial x} + a_9 \right) + x (a_{10} + a_{11} x \operatorname{ctg} \alpha) \frac{\partial}{\partial \theta} + a_{12} x \operatorname{ctg} \alpha \right] w + x^2 X = 0$$

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ACC NR: AT6004255

$$\begin{aligned}
 & \frac{x}{\sin \alpha} \left[ (b_1 x + b_2 \operatorname{ctg} \alpha) x \frac{\partial}{\partial x} + (b_3 x + b_4 \operatorname{ctg} \alpha) \right] \frac{\partial}{\partial \theta} u + \\
 & + (b_5 x^3 + b_6 x \operatorname{ctg} \alpha + b_7 \operatorname{ctg}^2 \alpha) x^2 \frac{\partial^2}{\partial x^2} + \frac{1}{\sin^3 \alpha} (b_8 x^3 + \\
 & + b_9 x \operatorname{ctg} \alpha + b_{10} \operatorname{ctg}^2 \alpha) \frac{\partial^3}{\partial x^3} + x^3 (b_{11} x + b_{12} \operatorname{ctg} \alpha) \frac{\partial}{\partial x} + \\
 & + x (b_{13} x + b_{14} \operatorname{ctg} \alpha) \Big] v + \frac{\partial}{\partial y} \left[ \frac{x^3}{\sin \alpha} (b_{15} x + b_{16} \operatorname{ctg} \alpha) \frac{\partial^2}{\partial x^2} + \right. \\
 & + \frac{x^2}{\sin \alpha} (b_{17} x + b_{18} \operatorname{ctg} \alpha) \frac{\partial^3}{\partial x^3} + \frac{x}{\sin \alpha} (b_{19} x + \\
 & \left. + b_{20} \operatorname{ctg} \alpha) \frac{\partial}{\partial x} + \frac{x \operatorname{ctg} \alpha}{\sin \alpha} (b_{21} x + b_{22} \operatorname{ctg} \alpha) \right] w + x^4 Y = 0 \\
 & \left[ c_1 x^2 \frac{\partial}{\partial x} \left( x \frac{\partial^2}{\partial x^2} \right) + \frac{x}{\sin^2 \alpha} \left( x c_2 \frac{\partial}{\partial x} + c_3 \right) \frac{\partial^2}{\partial \theta^2} + \right. \\
 & + x^2 (x c_4 \operatorname{ctg} \alpha + c_5) \frac{\partial}{\partial x} + x (x c_6 \operatorname{ctg} \alpha + c_7) \Big] u + \\
 & + \frac{\partial}{\partial \theta} \left[ \frac{x^3}{\sin \alpha} \frac{\partial^2}{\partial x^2} (x c_8 + c_9 \operatorname{ctg} \alpha) + \frac{x}{\sin \alpha} \frac{\partial}{\partial x} (x c_{10} + \right. \\
 & \left. + c_{11} \operatorname{ctg} \alpha) + \frac{1}{\sin \alpha} (x^3 c_{12} \operatorname{ctg} \alpha + x c_{13} + x c_{14} \operatorname{ctg}^2 \alpha + \right]
 \end{aligned}$$

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ACC NR: AT6004255

$$\begin{aligned}
 & + c_{13} \operatorname{ctg} \alpha) \Big] v + \left[ x^4 c_{14} \frac{\partial^4}{\partial x^4} + c_{17} \frac{x^2}{\sin^2 \alpha} \frac{\partial^4}{\partial x^2 \partial \theta^2} + \right. \\
 & + c_{18} \frac{x}{\sin^4 \alpha} \frac{\partial^4}{\partial \theta^4} + c_{19} x^2 \frac{\partial^3}{\partial x^3} + c_{20} \frac{x^3}{\sin^2 \alpha} \frac{\partial^3}{\partial x^2 \partial \theta} + \\
 & + \frac{1}{\sin^2 \alpha} (x c_{21} + c_{22} \operatorname{ctg} \alpha) \frac{\partial^3}{\partial \theta^3} + x^3 (c_{23} + c_{24} x \operatorname{ctg} \alpha) \frac{\partial^3}{\partial x^3} + \\
 & + \frac{1}{\sin^2 \alpha} (c_{25} + c_{26} x \operatorname{ctg} \alpha) \frac{\partial^3}{\partial \theta^2} + x (c_{27} + c_{28} x \operatorname{ctg} \alpha) \frac{\partial^3}{\partial x^2} + \\
 & \left. + x \operatorname{ctg} \alpha (c_{29} + x \operatorname{ctg} \alpha c_{30}) \right] w + x^4 Z = 0,
 \end{aligned}$$

where  $a_n$ ,  $b_m$ , and  $c_k$  are constants related to conditions of elasticity. The authors conclude that: 1) the frequency of shell vibration decreases continuously with increasing rate of flow; 2) the shell loses stability through divergence at supercritical rates of flow; 3) the amplitude of vibration increases or decreases depending on the direction of flow. Orig. art. has: 8 equations and 1 figure. [04]

SUB CODE: 20, 13 / SUBM DATE: 26Aug65 / ORIG REF: 006 / ATD PRESS: 4/96

BVK  
Card 4/4

L 20759-66 EWP(m)/EWA(h)/EWP(k)/EWT(d)/EWT(l)/EWT(m)/ETC(m)-6/T/EWA(j)/EWA(d)/EWP(w)  
ACC NR: AP60075/2 (A) SOURCE CODE: UR/0198/667002/002/0130/0135  
EWP(v) IJP(c) EM/NW/DJ

AUTHOR: Stepanyuk, V. V. (Kiev)

57  
55  
B

ORG: Institute of Mechanics, AN UkrSSR (Institut mehaniki AN UkrSSR)

TITLE: Parametric vibrations of a cylindrical sandwich shell with a pulsating flow of liquid in its core layer

SOURCE: Prikladnaya mehanika, v. 2, no. 2, 1966, 130-135

TOPIC TAGS: sandwich shell, cylindrical sandwich shell, corrugated core shell, dynamic shell stability, shell vibration, parametric resonance, liquid filled shell

ABSTRACT: The vibration of a finite-length cylindrical sandwich shell with a longitudinally corrugated core is discussed. A perfect incompressible fluid flows with a variable velocity in channels between one of the face layers and the core crimps. The possibility of the appearance of a parametric resonance is proven, and expressions are derived for determining the bounds of the first two regions of instability (associated with the flow velocity) of the shell motion. The corrugated-core sandwich shell is treated as a solid orthotropic shell, assuming the validity of the hypothesis of preservation of

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L 201/59-66

ACC NR: AP6007572

normals. The equations for the free vibration of the shell (without and with liquid) are derived by means of a previous solution of a similar problem (with a constant velocity of the liquid flow in channels) by the author (Prikladnaya mehanika, v. 1, no. 2, 1965). From these equations, an approximate formula for determining the principal region of the dynamic instability of the shell-liquid system is deduced. The procedure for determining the second region of instability is indicated, and both regions are plotted in a diagram in which the effect of the constant component of the liquid-flow velocity on the width of the instability region can be seen. Orig. art. has: 1 figure and 18 formulas.

[VK]

SUB CODE: 20 / SUBM DATE: 24Jan65 / ORIG REF: 004 / ATD PRESS: 4124

Card 2/2

I 10701-67 EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(k) IIP(c) M/EM/DJ  
ACC NR: AR6016457 (N) SOURCE CODE: UR/0124/65/000/012/B053/B053

AUTHOR: Stepanyuk, V. V.

TITLE: Effect of the forces of hydraulic resistance on the oscillations of a composite cylindrical sandwich shell containing a streaming fluid in the middle layer

SOURCE: Ref. zh. Mekhanika, Abs. 12B378

REF SOURCE: Sb. Dinamika sistem tverdykh i zhidkikh tel. Kiev, 1965, 21-24

TOPIC TAGS: cylindric shell structure, sandwich structure, hydraulic resistance, vibration analysis

ABSTRACT: The author considers small oscillations of a composite sandwich shell in which the middle layer is a longitudinally corrugated shell rigidly fixed to the outside layers at the points of contact. Hydraulic friction is calculated for a fluid running through the tubes formed by one of the outer shells combined with the undulating corrugation of the middle shell. Beyond this point these forces are determined with respect to the coordinate surface of the shell. It is shown that the roots of the equations for the frequencies of the shell are complex when the forces of hydraulic friction are taken into account. The streaming fluid is a source which increases the energy of vibrations of the shell. The problem is solved by the Bubnov-Galerkin method for boundary conditions corresponding to a longitudinally movable hinge. Non-linear vibrations of the shell are not considered. Bibliography of 3 titles. [Translation of abstract]

Sloshing

SUB CODE: 20

Card 1/1

REF ID: A653220012-9  
A653220012-9

(K) DATED DOWN: 08/01/94/05/000/000/000/000

Author: V. V. Vaynshteyn

Title: Oscillations of an orthotropic cylindrical shell in the field of acoustic disturbance of a gas contained within the shell

Source: Ref. Zh. Mekhanika, Abs. 123373

Ref Source: Bb. Dinamika sistem tverdykh i zhidkikh tel. Kiev, 1965, 89-99

Topic Area: cylindrical shell structure, acoustic effect, gas dynamics, boundary value problem

L. V. VAYNSHTEYN formulates and solves the problem of small disturbances in a system consisting of an orthotropic cylindrical shell of finite length and a volume of gas in the interior of the shell with disturbances in the gas which are independent of oscillations of the shell. The total potential for the disturbances in the gas is given as the sum of the potentials of natural oscillations of the gas in the rigid chamber and the potential of disturbances of the gas by the oscillating walls of the shell. Linearized differential equations and boundary conditions are derived for these potentials. The terms corresponding to nonlinear terms in the equation and boundary conditions for the total potential are retained in the equation and boundary conditions for the second potential. Thus these two components of the total potential are treated

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"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653220012-9

KASINTSEV, I., inzh.; KRYNSKIY, G., inzh.; LYAPIN, K., inzh.; STEPANYUK, Ye.,  
inzh.

What inspection has shown. Zhil. stroi. no. 11:29-31 '65.  
(MIRA 18:12)

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653220012-9"

IRKHIN, A.P., dctsent; STEPANYUK, Ye.I., inzhener.

Draught during sailing and speed characteristics of diesel freighters  
of the "Bol'shaya Volga" type. Rech. transp. 14 no.3:15-19 Mr '55.  
(Ships--Measurement) (MIRA 8:5)

STEPANYUK, Ye. I.

BELYAK, Yu.L., kand.tekhn.nauk; STEPANYUK, Ye.I., kand.tekhn.nauk.

Investigating vibrations on the motor tugboat, "V. Kuibyshev"  
Rech.transn. 16 no.8:24-25 Ag '57. (MIRA 10:11)  
("V. Kuibyshev" (Ship)) (Vibration (Marine engineering))

STEPANYUK, Ye.I., kand.tekhn.nauk; VELEDNITSKIY, I.O., inzh.

New data on water resistance to the movement of a barge tow  
proceeding in wake. Rech. transp. 17 no.3:18-20 Mr '58.  
(MIRA 11:4)

(Towing) (Drag (Hydrography))

STEPANYUK, Ye.I., kand.tekhn.nauk

Investigating the squat of river craft sailing in shallow  
waters. Trudy TSNIIRF no.39:42-61 '59. (MIRA 13:4)  
(Inland navigation)

ANTONOVICH, Sergey Aleksandrovich, kand.tekhn.nauk; NOVIKOV, Viktor Vasil'yevich, inzh.; RENSKIY, Nikolay Mikhaylovich, inzh.; FOMKINSKIY, Leonid Ivanovich, inzh.; SHIMKO, Konstantin Nikolayevich, kand.tekhn.nauk. Prinimal uchastiye SMANTSER, A.I., inzh. AL'BANOV, V.M., inzh., nauchnyy red.; LAKHANIN, V.V., prof., doktor tekhn.nauk, retsenzent; KULIKOVSKIY, P.P., kand.tekhn.nauk, retsenzent [deceased]; STEPANYUK, Ye.I., kand.tekhn.nauk, retsenzent; PAVLOV, A.V., inzh., retsenzent; PETROV, M.D., inzh., retsenzent; ROMANOV, P.A., inzh., retsenzent; SOBOLEV, P.I., inzh., retsenzent; VITASHKINA, S.A., red.izd-vs; YERMAKOVA, T.T., tekhn.red.; VOLCHOV, K.M., tekhn.red.

[Handbook for marine heat engineers] Spravochnik sudovogo teplotekhnika. Sost. S.A.Antonovich i dr. Leningrad, Izd-vo "Techno transport", Leningr. otd-nie, 1960. 679 p. (MIR. 14:3)  
(Marine engineering) (Heat engineering)

STEPANYUK, Ye., kand.tekhn.nauk; KHATSKLIN, L.,inzh.

Some data on water resistance to the movement of sectional trains.  
Rech. transp. 19 no.4:16-19 Ap '60. (MIRA 14:3)  
(Hydraulics) (Towing)

L 10921-67 ENT(d)/ENT(m)/ENT(w)/ENT(v)/ENT(k) IJP(c) EN  
ACC NR: AR6034803 (v) SOURCE CODE: UR/0398/66/000/008/A020/A020 21

AUTHOR: Stepanyuk, Ye. I.; Shatsman, Yu, L.

TITLE: Experimental investigation of the work of partially submerged propellers 10

SOURCE: Ref. zh. Vodnyy transport, Abs. 8A115

REF SOURCE: Tr. Leningr. in-ta vodn. transp. vyp. 81, 1965, 71-75

TOPIC TAGS: gust load, ship component, load factor, propeller

ABSTRACT: The paper presents the results of a test to show the comparative effectiveness of an exposed propeller and a packed propeller under conditions of partial submersion and at comparatively high load factors. The tests were carried out with a single four-blade propeller (Kaplan type) of  $D = 0.098$  m in a circulating flume, the speed of which was controlled within the limits of 0.2—1.3 m/sec. The results of the tests are presented in the form of diagrams. Orig. art. has: 5 figures. Bibliography of 1 title. [Translation of abstract]

SUB CODE: 13/

Card 1/1

UDC: 629.12:532.5.582.5

STEPANYUK, YE.I.

✓ 1513. Separation of niobium and tantalum from  
titanium by means of citric acid. I. P. Alimarin  
and Ye. I. Stepanyuk (M. V. Lomonosov Inst. of  
Finer Chemical Technology, 7-1000 Tab., 1968, #2 [10],  
1149-1153). Citric acid precipitates Nb and Ta  
completely from 3 N HCl containing  $\geq 1\%$  of tar-  
taric acid. A re-pptn. gives complete separation  
from Ti. The oxides ( $> 0.1$  g) are fused with 4 g  
of  $K_2S_2O_8$ , and the cooled melt is dissolved in 20 ml  
of 10% tartaric acid soln. Water (110 ml), 50 ml of  
conc. HCl and 20 ml of 10% citric acid soln. are  
added and the soln. is boiled for 25 min. The ppt.  
is collected and washed with hot N HCl and  
then redissolved in 50 ml of conc. HCl. Re-pptn.  
is carried out as described above, the washed ppt. is  
ignited and fused with  $K_2S_2O_8$ , and the pptn.  
is repeated. G. B. SIEGMUND

27

14E2c

PM  
mit

AUTHORS:

Alimarin, I. P., Stepanyuk, Ye. I.

SOV/32-24-9-9/53

TITLE:

The Separation of Niobium From Zirconium With Selenious Acid  
(Otdeleniye niobiya ot tsirkoniya selenistoy kislotoy)

PERIODICAL:

Zavodskaya Laboratoriya, 1958, Vol 24, Nr 9, pp 1064-1065 (USSR)

ABSTRACT:

The literature contains descriptions of the use of selenious acid for the separation of elements, in particular for the separation of niobium and tantalum. The present method is based on the fact that in the presence of organic oxy-acids (such as tartaric acid), zirconium is not precipitated by selenious acid. The analytical procedure and a table of the results obtained are given. It has been observed that dependable results are obtained, unless larger amounts of zirconium are present, in which case a niobium loss occurs. The resultant niobium pentoxide precipitations were shown by spectral analysis to contain less than 0,05% zirconium. Attempts for the separation of tantalum from zirconium with selenious acid in a solution of tartaric acid were unavailing, as the preponderant amount of zirconium kept tantalum in solution. If niobium and tantalum are precipitated besides zirconium, the tantalum loss is reduced by niobium coprecipitation. A table of the results of these experiments

Card 1/2

SOV/32-24-9-9/53

The Separation of Niobium From Zirconium With Selenious Acid

is also given.

There are 2 tables and 1 reference, which is Soviet.

ASSOCIATION: Institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova  
(Institute of Fine-Chemical Engineering imeni M. V. Lomonosov)

Card 2/2

STEPANYUK, Ye.I., cand. tehn. nauk; CHUBNICKIY, A.M., ir.zn.

Analyzing the existing methods for the calculation of the  
screw-nozzle propeller complex. Trudy MVT no.45:27-43 '63.  
(MIR 17:6)

STEPANOV, A. P.

STEPANOV, A. P.: "An experiment in perfecting the Soviet heavy draft horse in the region of the Yaroslavl' State Breeding nursery."  
Moscow Veterinary Academy, Min Higher Education USSR. Moscow, 1956  
(Dissertation for the Degree of Candidate in Agricultural Sciences)

Dot. Entzheyna Letonia!, № 17, 1956

NAZAROV, I.A.; PEREL'MAN, A.L.; SMOLOV, V.B.; STEPASHKIN, G.I.; STERNIN, V.I.

Electronic calculator of the propagation velocity interval  
of elastic vibrations for an acoustical logging device.  
Geofiz. prib. no.9:46-64 '61. (MIRA 15:11)  
(Logging (Geology)--Equipment and supplies)  
(Electronic calculating machines)

STEPASHKIN, Klevdiya Ivanovna

[Blood proteins and their clinical significance] Bilky krovi ta  
ikh klinichne znachennia. Kyiv, Derzh.med.vyd-vo URSR, 1958.  
314 p.

(MIRA 12:2)

(BLOOD PROTEINS)

KLIN, E.V.; ALEKSEYEV, V.V.; VAKSMAN, Sh. ... GOROV, B.P.;  
STEINSHKIN, N.I.

[Building an automobile bridge using pre-cast reinforced  
concrete structural elements] Stroygizdat. tvo avtodorozhnogo  
mosta iz sbornykh zhelezobetonnykh konstruktsii. Moskva,  
Ogtransstroi, 1963. 24 p. (MIR 17:7)

STEPASHKIN, S.M., inzh.

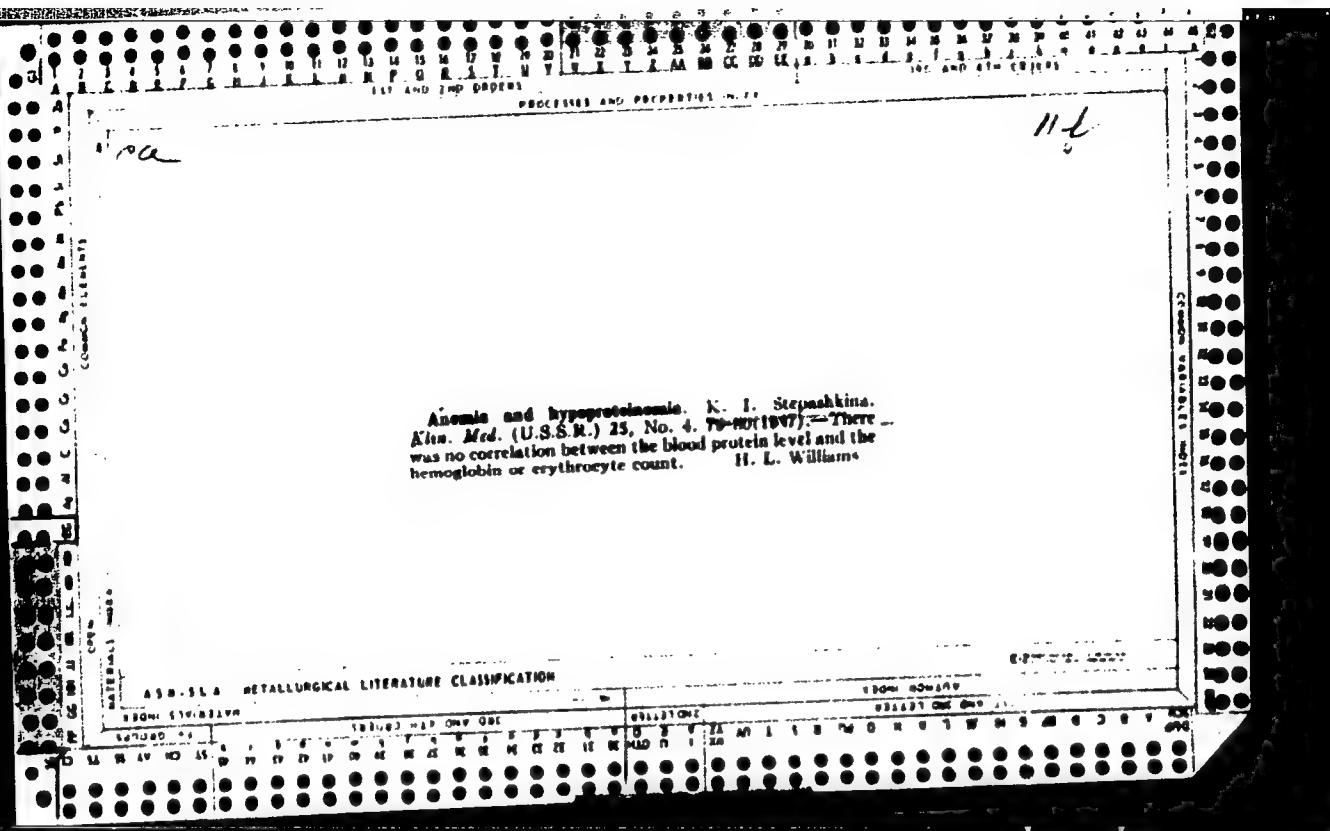
Automation of industrial production processes, Mashinostroitel'  
no.2/3:12-20 N-D '56. (MIRA 12:1)

1. Moskovskiy avtomobil'nyy zavod imeni Likhacheva.  
(Automation)

STEPACHUK'A, Klevdiya Ivanovna

On the Problem of Albuminous Nourishment Concerning Disease of the Liver in the Light of Dynamics of Protein of the Blood

Dissertation for the degree of Doctor of Medical Science. Chair of the Department of Therapeutics (head, Prof. P.N. Nikoleyev), Saratov Medical Institute, 1942



STEPASHKINA K. I.

181T58

USSR/Medicine - Blood Transfusion

Mar 51

"Treatment of Epidemic Hepatitis by Transfusions of Blood Plasma," Prof K. I. Stepashkina, Dnepropetrovsk

"Klin Med" Vol XXIX, No 3, p 84

Finds method effective and equivalent to treatment with glucose and insulin.

181T58

STEPASHKINA, K.I.

Causes of contradictory data on blood proteins in liver diseases.  
Klin.med., Moskva 29 no.49-52 Apr 1951. (CIML 20:9)

1. Dnepropetrovsk.

STEPASHKINA, K.I.

Discussion of Vilkovyskii's article "Treatment of Botkin's disease  
with mercural and water jolt". Klin. med., Moskva 30 no.2:70-72  
Feb 1952. (CLML 22:1)

1. Professor. 2. Of the Department of the Propediatrics of Internal  
Diseases (Head -- Prof. K. I. Stepashkina), Dnepropetrovsk Medical  
Institute.

STEPASHKINA, K.I.

Evaluation of liver function test with sodium benzoyl oxide. Ter. arkh.,  
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1. Professor. 2. Of the Propediatric Therapeutic Clinic (Director -- Prof.  
K. I. Stepashkina), Dnepropetrovsk Medical Institute.

STEPASHKINA, A.I.

RESHETNIKOVA, A.R. (Dnepropetrovsk); STEPASHKINA, K.I., professor, direktor.

Functional characteristics of cardiovascular changes in closed cranial wounds.  
Klin.med. 31 no.7:45-47 Jl '53. (MLRA 6:9)

1. Propedevticheskaya terapeuticheskaya klinika Dnepropetrovskogo meditsinskogo instituta.  
(Head--Wounds and injuries) (Cardiovascular system)

STEPASHKINA, K.I., professor (Dnepropetrovsk).

Disturbances of certain liver functions in cranial trauma. Klin.med. 31 no.  
10:40-42 0 '53. (MLRA 6:11)

1. Iz prepovedticheskoy terapeuticheskoy kliniki (direktor - professor K.I.  
Stepashkina) Dnepropetrovskogo meditsinskogo instituta.  
(Liver--Diseases) (Skull--Wounds and injuries)

STEPASHKINA, K.I., prof.

Use of stragalus in treating stenocardia in coronary cardiosclerosis.  
Vrach.delo no.10:1035-1037 O '57. (MIRA 10:12)

1. Propedevticheskaya terapevticheskaya klinika (zav. - orof. K.I.  
Stepashina) Dnepropetrovskogo meditsinskogo instituta.  
(ASTRAGALUS) (ANGINA PECTORIS)